

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 09/754,853C
Source: /FW/b
Date Processed by STIC: 10/19/06

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/09/754,853C

TIME: 10:15:34

Input Set : F:\00330V2.TXT

Output Set: N:\CRF4\10192006\I754853C.raw

```

1 <110> APPLICANT: Hauge, Brian M.
2   Parnell, Laurence D.
3   Parsons, Jeremy D.
4   Wang, Ming Li
6 <120> TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
7   Soybean Cyst Nematode Resistance
9 <130> FILE REFERENCE: 38-10(15810)B
11 <140> CURRENT APPLICATION NUMBER: US/09/754,853C
13 <141> CURRENT FILING DATE: 2001-01-05
15 <150> PRIOR APPLICATION NUMBER: US 60/174,880
16 <151> PRIOR FILING DATE: 2000-01-07
18 <160> NUMBER OF SEQ ID NOS: 1119
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 127197
22 <212> TYPE: DNA
23 <213> ORGANISM: Glycine max
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Clone ID: 515002_region_G2
28 <400> SEQUENCE: 1
30 aagcttgaac agtatatgga ttagccacca tgttgaaagg cacgtaaggc caaatctcag      60
32 cctttttccc tgttgacttg gccttcttta agaccttggt tggttccaca taaccagtta      120
34 ctgttacttt ctgctgcttc ctgtttatct ccaccgatcc tactcctaca cttacaccac      180
36 catttttttag ttaatttcat caccttcata cgtgttgaat gctatataat taatatatca      240
38 cactattaat tttcaccaaa agaaaaatat tacactatta attgataaca tactctctaa      300
40 cacttttggt ttaacatatt atttattatt aattaaaatt tattgaaaac cataaattat      360
42 aaattataag tgaaccgta aaataaagag tcatatcaaa cattttttgt gattttcaac      420
44 aaattttaac ataaaagatg gttgtgctag ctttttttat atatattatt ataattataa      480
46 tatggcacac taccatgga agctgatttt gagaataaaa ttgagggaaa acgtagcact      540
48 taccatctaa tgaagagaga gttttcctaa ccttgagcac acagccgtca caatccatca      600
50 tcaccttcag ctccacggtc tgtaattgct tcttggtctt gttcttggtg ttgtggtggt      660
52 ggttgccatt cccacttccc attaaatcag accagtaatc tccaaccccc atttttgtgt      720
54 atttaatatc aaaaccaata tgaaagcaag ctgggaagtt cttgatgagt agagaaaatt      780
56 agtaggtatt agatgggttg aacatcattg atgggtgtggg agcgtaggag aagaatttat      840
58 atagagaaaa agcaagggtc aaaaccacaa gaagttacaa ggaactttct tgcaaacacag      900
60 aaaaatatct ctcactcact taccttctaa tgatctaaaa accaatgctg ctctttgaag      960
62 aacttttttt tagttacctt gggatatttt taccacatct aactaaaatt gattttggta      1020
64 gaagtaaaaa ttaatcttat ttgttttaat tttatcataa ttttaaaaat aatttaaacy      1080
66 tacaaaaatt agttaaaatc aagattaatt cacatcagca tagtctacca gaattttgaa      1140
68 agttattcac acaattatat ataggttttt tcaccattca gattcaatga tatgaatgga      1200
70 aaggtatagt ggtccctaac tacgccagtg aataaagaac cttagaacgg attataactt      1260
72 cttaacggag aaaattttta cgtgggggtc aagaaagtag ataagaagga acgcattcct      1320
74 gtatcacctt tttcattcgc aaatatatat gtaaatagta aaaatttatg gtactgcttg      1380
76 cggttcagtt gacacttgac aaagttattt atttgatatg taaaaagaaa tggacatatc      1440

```

RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/09/754,853C

TIME: 10:15:34

Input Set : F:\00330V2.TXT

Output Set: N:\CRF4\10192006\I754853C.raw

```

78 aaatgacagc taatactgag aactctctta ttgaagagca ataatttatt gaggacgaaa 1500
80 gtgaaagact gaaagcagct tccaccgact catgcacata tccgatcgaa tgaacaacat 1560
82 aatgtggaac agataatgac ggggattgta tttgaagtga tgcaagtgca agcatttagc 1620
84 accattgaca aagataatcc ttcattatgc aacggctatg agccttttac cctctccatt 1680
86 gataaaattt cagtcaactt aaggccaatc aaactcacia atatatgtca agtttgtact 1740
88 ttgcaaaaag ataataagga aattatctat caaactaaaa taaaattcac aaaatcatca 1800
90 ttccttagcc agactcatga tccaaactca tttttttaat taaatttcag tcttctaaca 1860
92 ttaaggagtt tccccatttt tcttgatttt aaaaagaaaa tatttcaatc gtctctctta 1920
94 gcgataccct ttggactcgt tgtgacaata ttcataacac tttctcctaa aatctttcga 1980
96 cttttcacta taaatacttg ttaatgttat ctaaaagtat gaagcattat tttgtaagca 2040
98 aattctttta gcttagtcac gaagaagtta ttggaagtgt cataattaat ttcattcatgc 2100
100 atgggttcaag aattccatta gacaaagaaa attgtctcag tagttatcat cgataacaca 2160
102 agctactaga ccaattgacc aaagaagttt cgtcttttaa attcttttcc catcttgttt 2220
104 gaatatgaga tatttgattc tcattgatac tttttcgata agataaagggt gacattttgg 2280
106 cttctgtttc taagatattt ctataaaggg aaccaaaga agcaatttga atcattaatt 2340
108 taactaacc actaaataat ctttttttca attagcaaaa ctgctgaaag ctgagtcaca 2400
110 cttttggaaa acaaaagtag agtgataagg aaaagataaa aataagaaaa tgcaacgaaa 2460
112 agtgtgggtg agaacagaaa agagaagcat gcgtcaggat accaccctaa actaaagtat 2520
114 gtgcttaagt tttgaagtac cggaggtata caccaaaggc ttagtttcat ttgcattaac 2580
116 atattaataa taattcacia gagaagaaat ataaaataag ataaatcaat ttttccaa 2640
118 gttaaaattt attttatttt ttggaatttt tacaagaaat aaaaaaattc ataacttaaa 2700
120 attaaactcat gtatgataac tttttaatag ttttttgtt taattttcct aaaagataag 2760
122 gcgtataaat taattttagt ttacgagaga agttggattt gtttatttct tatattaagt 2820
124 gccttgttta gaaatttatt gaaagtgacc caaatcaat tatatgtgga tttaaacact 2880
126 tcaaagctcg ctgaaactga aagcatttca ttcaaagta aatttaacgt taatgttccc 2940
128 ctgattagtt gagaaaagga catgaattgt actagtatta atttacctcg agatcaaaga 3000
130 gagcaaaaag tttaatacata ctatatttac gcagaaaaag atgataaaca agtgtatagt 3060
132 acagacgtga gacgtggaat aaaactttga ttagtaataa attggtcatt gttgctttta 3120
134 gaaacttgct gtggacacac atgacaaaag ggatttgcac ttttatgaag ctgctctcat 3180
136 gtttaaaactt taatttggac ggaattgaaa aacatctcat tgatatattc atgtgcttcc 3240
138 ttcttgctag cttttggatt gtagatactc tttgattatc ataaaaggaa cgaacgactt 3300
140 taatttggaa attgagaccg aagttgcaat agaaatcggt acacgtcttc tctagtgtgt 3360
142 atgtattgtt tcttttggg tttaaaggat gaccaaatgt tgaggccagt cacaataata 3420
144 agggaactca cgaagctggg gaaagtgttt agtatagttt aatgtttaaa ctcatgcacg 3480
146 caccagatat cttagaatc tataccagat atataacggt tgtctatata gtttctttcc 3540
148 attcccattg ttggagaatt aaagcttctg attatttagc atattttatt gtataatttt 3600
150 actatatagt attttgtact ttaagtatct tatcaaactc tcggttgcaa catcattgga 3660
152 gaagatatag tggcattcat aatgaataca agtccaatga attcacttta tgttgtcaac 3720
154 tagtagtcca atgaattatg ttgtggttgg cttagaatg aatacaagtc aaatttcagc 3780
156 tggcttacag tcacagtggc atggaatata taacagagtg ttgctgcaaa aaaacaataa 3840
158 tgacgacaac aggactaaat acaatgcattg ttttttttt ttaattgaga aataatttat 3900
160 tctttaaagt tctctaaaaa aagtaacatt ttactaataa ttttccccac tcgaattgag 3960
162 ggtattaaag taattttcat tgtttttgct tttatttttt atttaaaaaa catttgttca 4020
164 gttaatgaga ttaatgaatt ttgtcacttt tgggtaacac atgtaaaatt gaagacggat 4080
166 gcagaaacaa acacctacta aatgacagta tatgaaacct ttatatcaag tacatatatt 4140
168 attttctcaa ttttctttta ctttaactca ttaagccaat cgatctatta catctcttac 4200
170 tttgatttga tgtttcactt atcattaatt aaagataaac aatgtattac attttcttaa 4260
172 ctaaaaatta gcatctaaga catatatatt tgtagttcat tttgtcatga aaaatatggg 4320
174 tacatcatcc gatacaatta ctaaaactaaa ctaagggaag aattattctc acttttatat 4380

```

RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/09/754,853C

TIME: 10:15:34

Input Set : F:\00330V2.TXT

Output Set: N:\CRF4\10192006\I754853C.raw

176	ttgttattta	aactatcaat	tctgaaattt	ctattttgcc	cactaaccac	attcctccac	4440
178	ccccctctctt	ttccccctccc	tccttctcat	atccaaaacc	gttgcccccta	caccaaccta	4500
180	gactgcatca	ccccctccctc	agcgccaccc	ttctccccac	acaaaacgtc	gtcaatccac	4560
182	gaccacgcca	tcctctccctc	cgcaacccat	tgtaaatcca	catgcatgcc	atcctccccc	4620
184	tccatgcaat	tcgttgatcc	acacagcacc	ttgccccatc	aagatcaagc	acccttgttt	4680
186	ctcttttttg	gattttattg	cagggtttgt	tggtgttgaa	tcgtatttct	gttgcacat	4740
188	tttttacacg	ctactgtctg	taatggaaat	agaatgaaat	cgtatttctt	ttgctttttt	4800
190	ttctttaccc	catgtgtgca	acgaaaatag	aattttgtta	gagacttatt	taacggagtc	4860
192	atattttcgt	gggaaggaca	agctaaaaaa	aaaatatttg	aaactaagag	ggattgtgcc	4920
194	aatagcaata	ttgggtattgc	tagttcccc	gaactacata	aaaccttct	cgtattgaaa	4980
196	tatgcttaat	taaaactttc	atacctgaaa	tatgggtgtc	ttcaaattat	tagctaatat	5040
198	ttattttttt	taatcaagta	gttgaaaaaa	aaattcagtt	tcattttatt	atatttttat	5100
200	ttttcatcaa	gtggtaatat	gacatacgga	gtgttgccct	aacctgtctt	gttatggata	5160
202	actcatactc	atgttatcat	cttcgatgat	tgtgacaata	acatgttggt	aaattgaaac	5220
204	ataaaaaaat	tttagataac	tatttgacaa	aaaatgaatt	tttaggtagt	aatttgaaaa	5280
206	taattttattt	tcagggtatg	aaaaacttaa	ttaaatcaat	ctgaaaaata	attttttagc	5340
208	taacaaatga	taaggagaaa	ttttataaaa	ataaataatt	taatttcaa	taaaatgata	5400
210	aatttttatta	tttcattaaa	aataaaaaata	aaaatggtaa	tcataaattt	aagttatggt	5460
212	taaaagtaaa	tcttataagt	caataagaaa	aaattatttc	tcaaacactt	ttatttgatc	5520
214	aaatatttgt	aagtttgtgt	aaaaaactaa	aaattaatta	aaataacctg	atgagcatat	5580
216	atgtaattta	cttttatata	gacttaaaaa	actttatctt	tttttaagat	aattttctcat	5640
218	tcaaaataag	aaatacatta	aattaatgag	atattttttt	atgtgtagaa	ttaaaaaaag	5700
220	tactatttga	aattcacaat	aacacttatc	aattttatcat	atttaatcag	ctgaactaaa	5760
222	ttaataaaat	aatattaaag	attaaattaa	aaagttgagt	tacatacatt	gaaccaacaa	5820
224	gatcaaacac	tgagatatat	attttggtatc	cagagaataa	taaaggaaga	gtgaaggaag	5880
226	gcataacatg	ttacatacat	tgaaccaaca	agatcaaaca	gtgagatatt	aattatttat	5940
228	tgttttaata	aatttttaat	acctgaaaaa	catatcattt	ttaaattatt	acttaaaaaa	6000
230	tcattttttt	caaataccta	ctagaaaaaa	aaatttagtt	ttattttatt	atgtcattaa	6060
232	tcataatcac	gtccactcgg	tcatatgtca	ttgaaagtga	taacgtaaca	ataaaatatt	6120
234	cgtgacaagg	tgtgatgacg	taacattttg	tatgtccat	tatcatttca	ctaaagacaa	6180
236	ctaacaacaa	ataataaaat	aaaattgaat	tttttttaaa	atacttaact	ttaaaaaata	6240
238	aatattaaat	aataatctaa	aatgatctg	tatgtccatt	atcaaaaatt	taagtaagcc	6300
240	gaaatataac	cttcttattc	agtcattgtg	gattcgctaa	caactcgtgc	tgatcgagcc	6360
242	tatagtaatt	agctctctta	gctagaaaac	ttagccccctg	attatcaata	tgatgttctt	6420
244	gcacaaaacg	acaaaatgat	ttcatgattt	ttagataaat	aagcgcagga	ttctctatta	6480
246	ttcagagcaa	ttaaatgaac	gcaattacga	ggcagcaaat	gcaaaatgct	tcacatgagg	6540
248	ctattggcta	tttaaaattt	cactttgaca	tttttataat	taattttgtc	tcaataattc	6600
250	gcatgacaat	tagcattaaa	ggttagctaa	aactctaatt	taaattgtta	caatatttta	6660
252	aaaaaaaactg	agaaacatga	tttaagtttt	gttatttat	caaatactac	tataaaatag	6720
254	aaaaaaactta	caccttcaa	atgtactaga	ttcggatttt	ttttatagaa	aatattttta	6780
256	aattaaatgt	catactcaac	agtcaacacg	gtatttcaca	gtcccttaga	atttcaaaca	6840
258	aatcaacca	agtaacataa	attagttgac	tgaaaaaatg	aattaaatta	aaaggcagtc	6900
260	atgggataac	accaggcata	ttaatttaca	taacctcacc	cgagcaaaag	cgggtttaac	6960
262	agataatggt	ccagtacgtg	ttaggaatct	aacatgctgg	caatgtcaa	aaaataacag	7020
264	cattggatgg	tgtaagatct	aaaatactta	caaagctagg	aggaggacaa	aatggataca	7080
266	tatttgatg	tacatgtaat	aactctatct	agacaggcta	gttgagatac	ataagaataa	7140
268	gaacgtgtct	gtctcagtaa	agggcagaca	caagtagaag	tagaagaaac	aaatagcagt	7200
270	gccaatgtac	ccggcacgat	gaaatcatcc	gagatggagc	agccgaaggt	ttgtggggag	7260
272	ctcttcacgc	aacagctgga	gcaactgcat	gcccgttcgt	tctttgttgc	tcactctgtag	7320

RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/09/754,853C

TIME: 10:15:34

Input Set : F:\00330V2.TXT

Output Set: N:\CRF4\10192006\I754853C.raw

274	gcaatggggt	tgatgaagtc	tcatttggag	aaaggggcat	cctcttgcc	agactcagat	7380
276	cctgacctac	agatgcatgt	agactgtata	taagcaaaag	gaataaaaag	ggagacggga	7440
278	agaacagtgt	taaggtagaa	aaaagccttt	gcatcaagca	ccaggcaaat	ggttaagaga	7500
280	ccaagaactc	acaagaagtc	agcttcattg	cctaagtaga	atgattagaa	ctaaagctaa	7560
282	aatatattag	cttataaaact	caaagtacta	tgactcacia	tttgagcgtg	accacgctag	7620
284	cttcttgggt	cccctatcaa	ataccaaacg	gtatcctgtc	atgaagttct	ctgccaaaaa	7680
286	aatttattag	ttttaagatc	aaagtatctt	ttaataccat	attccagagt	atgggtaatc	7740
288	agtagacttt	gataaggaaa	atattttaact	tacgtccgat	tgttcccata	tctccttcag	7800
290	ttggctgtat	ggctaaacaa	aatccaatga	ctccctgcac	aggaaggacc	gatctaacta	7860
292	atttagctac	aagccgacaa	ctattcttat	aatgaagtct	cttgtaacat	ctttaattat	7920
294	atgtcaaaat	tttagtccag	gatcacttaa	ttcacaccca	cctcattgcc	atagaataca	7980
296	aatacggggg	catagaccac	aaaactgtta	ttctgttgga	acgtgagagt	taagctggga	8040
298	acctttggca	actcttgcca	actgtctcag	aaaagaataa	ttaataaata	aagccatcaa	8100
300	agagaccaga	aaattctacc	aattaggaaa	tcatgcacca	acgcaagagg	gaagagagac	8160
302	agagatctat	ccagaaaact	cacctgggaa	cataacaata	ctcccaagga	gaccttcaa	8220
304	agctagatct	tgaaccattt	acttgttgat	caaactatca	caaataaaat	catattaaaa	8280
306	gactgagcag	aaatttacat	taatggaatt	tagaaaacta	aagtacctcc	tcagctattg	8340
308	ctccatacac	atgaccagga	agaaaagtaa	atgatgtccc	gctatcaacc	tgcactttaa	8400
310	aacttgtcat	tttaagacaa	gaattcccaa	cacaacatga	ctccactcca	ataatgtagg	8460
312	ttgaactgac	caggaaattt	atcataatta	gcactgtgac	accattttct	aaagtatatt	8520
314	ttagtgcagt	gaaacattgt	aaactaat	aaagtacaga	atttcatact	ataatccatc	8580
316	caaaggcaag	aatgaagtag	actgttggtg	gggttggtccc	tggtcccca	aaaatattct	8640
318	accagaatca	tcttcattaa	agcacaagga	aaaagaatcg	tggattaatc	ctgatttagc	8700
320	aagaaaactt	ggaactgaac	tctccccagg	ccccaaacct	aataggccat	ctggagcaac	8760
322	cccatccaaa	taaccaccac	tttgcttcat	accacacctg	cattcaacaa	aactgacgtc	8820
324	agagaaaaaa	ccaggaaact	tgtttttaat	taaaaaaaga	atacatcatc	agggaaagtg	8880
326	atgttgaagt	aacaaagaca	gggcagtcag	ccacacccaa	gaacaactgg	agcctgaaca	8940
328	gatgagtttg	ataaactgcc	gcctgactga	agatgcagta	tgtcctcaac	caacaatcca	9000
330	gaactcgacg	tgttctccga	caagtaactg	accatgtatg	gacactgctg	ctgtgaactt	9060
332	ttacaattcg	aacctttatc	acacaactga	tgactgcaag	atagatgctt	actggataag	9120
334	gaccgagacg	gactatactc	attcagatct	ctatcctgca	taatagatgc	cccatatgtg	9180
336	aaggagcacc	tgccaatcaa	ttactggaaa	taagtgtcaa	acctgttata	gattctaaac	9240
338	ctcattgaac	cattacactc	agaaaggaac	catgttttgt	gttagtgtca	cattaaactc	9300
340	gaattgaaac	cttatccaat	caaggatttg	caattcgcac	gattaactat	ttgttaacaa	9360
342	atcaataaaa	caagctaata	taatccgata	ttttattatt	tttattacat	ttaagatatt	9420
344	gagactacaa	gttacatagt	agagtaaacc	aacatttttag	ttcctgaaag	tataaagcct	9480
346	agtcacataa	acattagtcc	ccaaaactaa	gaaacttcaa	aaaagtcctc	gaagctgcaa	9540
348	tccgccaatc	gcattaatcc	aaagttataa	aaaaatatgt	gacttaatga	taatattatc	9600
350	atatgtttta	gagacaaaaa	tctcaagatg	aaacaactag	aaactcctcg	gactaatttt	9660
352	aaattttcct	tagtttgaag	aactaatgtg	acacctcggt	atgcttaatc	atagtttact	9720
354	ctacatagta	agagaaatca	aagaaaaaaa	tagattaggt	atgatattca	taccagattg	9780
356	gaatagtaac	tcgatgacaa	tggagcacac	tgtacgcaat	cacacggaat	ccaaaggaga	9840
358	tactccctg	cgtccaacgc	cacgagaaac	gaagtgtcgc	gtgttcctat	atcaatccac	9900
360	gtgtaatgca	acctaatac	cagagacgca	ttatcagatt	caaaccgaag	aaaaggaggc	9960
362	aattagggat	tattattatt	attattatta	ttattaccag	ccgaagtcgt	tgccgagcga	10020
364	catcggtttg	ctaccgtgag	aaggaaacag	tagctggtag	cgtgcgcctc	cgactttgat	10080
366	cttgccggcg	agaatgtcgc	cggtgagaag	catccggtag	tagcccatgc	tccaccggtc	10140
368	cggccagtat	ccggtcggag	gccgaaccgg	tttcatttcg	tcggcggaagc	ggtgaacgag	10200
370	gcgggcggaa	aacgtgatcg	gaaccggcat	tgcgcgagcc	gttaccacaaa	gcaacaaaag	10260

RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/09/754,853C

TIME: 10:15:34

Input Set : F:\00330V2.TXT

Output Set: N:\CRF4\10192006\I754853C.raw

```

372 cagcaaccgc caccgcacgc agatcgagat ctggcacttg cacttattct gatgcctcgt 10320
374 ttttaactgat ttaagtaacg attagtgtta attagtgagg tgagggtgcg cagtgtgcat 10380
376 catcatcgcc atggatcgta tcgtttcgtc cctgtgtggc tgtgtgtgag tgagagtgcg 10440
378 agtgagagtgc aggggtggata aaacaaacaa acaaaactag cgcattttgt tgcgggtgga 10500
380 attagactgt tactaagtgc ttaattaatg gggaaaggaa agtggtatga ttagtgtttg 10560
382 taacagtaag tgattattgt aaatgatgat taggaggaat aagggtgcaa cactgcagcg 10620
384 acgaagcgaa acgtcacgcg cgggtggcccc accatgtctt tacgtgcttg agaatgaaac 10680
386 ggccttttat tgccgatgtc gatttgcctt tgccactgtg ggccccccca catttattat 10740
388 tattcctttc cttttacgaa ataaaaata aaaaatcaaa caaacaaggc aaaagggttc 10800
390 ttaagtattt agtttcatta tataataaaa ataatgcct agatctagta aataatcaca 10860
392 ttatgtggtg tgggtcagga ataaagcttc acacacgaaa aaagaaatct tgcaagtaaa 10920
394 cagctgaaca cattaattgt ttttaaagaa atctaaagtt attgaagaaa acaactgaga 10980
396 catgataatt tgactaatta atacttttag tgaaggagac gtatttttaa agataaagta 11040
398 taattataat aataattaat aaaataaata acgattaata tttagtaatt tcattctatg 11100
400 taatattagt atgatctcaa ctcaactgat aattttcaag ataatagtta taattgcact 11160
402 ctgtggaatc ttaagttctt tctccaaaga aaaaaaaaaa cattttttct tccccttgtc 11220
404 gtgttctctt attctgccat ctccaattct gttcacatc gtagggtgtg ccgccaatga 11280
406 tgtttaatga taaagatcaa atacgtttgc aatgaatcgg gatgacaaga ctgagacaac 11340
408 caataggtga agctaaccac tgcacaagtgc ctccaatcaa taaaacaggc ccaaaaagggt 11400
410 ggggtggtcc aaaatgtgaa ggtaagttta agtaggggtg tcacgccttg gattgcgtct 11460
412 gtgtaaatcc gtcacccaat ccaaacaaaa aatattggat ggatttgtgt gtttttcttt 11520
414 ttaaatcgac ctaatctgat catgaatgaa tttgatcgag atggatttgt tattaaaaaa 11580
416 agttcaaaaa taattttctt aaatttttta aaatattttt tagaatttac aatacaatta 11640
418 cttgtaatat agttgcataa aaaaaattaa ccaccaattt caatgcacat attactgca 11700
420 tcataaaatc aaattgaaaa caagtaacca acaaacattt aatttataaa gcaataata 11760
422 ctaaatacaa tttcaaccat aaagcagata acaaatgtgc ttgaaaactt agtaatctta 11820
424 taaagtacac actagtacaa aataaactta aaatcatccc aaaaaatata taatactaca 11880
426 atagaaacac tgcaatatag tgataatgtc agacaattgc tcaaccagcc aacctcacac 11940
428 atagaaacac ggtaagcaaa agatcaaaat caattattat actaataata aatttaaatt 12000
430 atgctatgca gaaaaagaa atatgccaaa aaagaaatca tatcataaac taagttaaaa 12060
432 atattacctt aagaactaat agtcctaact cccaatacta atactcctaa gaatagtcca 12120
434 agtagtaatc ctaacactaa cattatttta agtcaaacca tacaacttta aaaaatgttt 12180
436 taaaaagttc atcataacat aatatcaatt tatattcata ttgtaaaaaa acggaaaaaa 12240
438 aaaaagaaac tattattgaa tacctagttc catctttttt gtttcatcta attcaactcg 12300
440 taaatcaccg acattttgct tattagtttt gagtcaattt tgggtacaaa tcaaagcttc 12360
442 aacagtaatg ggacttaaag aactacaaaa atggatcaag cactcaacct tttgtactaa 12420
444 atgcagactc aaatgacaca atagacataa gaatgaccaa tatatctcta gccatgaaag 12480
446 aaataacatg atatttggat gctttcattt tccaccatgc caaaatgtca aatccaagac 12540
448 cgtcatcttc attgtcatcc tttaaataca tatccaactc actcctttgc tattcaccac 12600
450 attttttatt cattttcaat ctaaattggg cgtcccaatc ctcatcctca tcaacatcgt 12660
452 tggcattacc ttgtgaagca tggatgaag ccaaagtact agaattacta ctatcaatgg 12720
454 aaataggatg ttctgaagca tattcaacaa acatttttct tataagatca tccaattttt 12780
456 tcagcatctc tttggtttgg tcaacaccat gcattttctt aaaacaaaac tcaatataat 12840
458 caaattttata acacagatca agaaaagcag tcacaaataa aagatagcta atctgatcac 12900
460 tctctcaata cttgttaaac ttgagttgca tattagttgt ctcttttgta tcaccggatc 12960
462 atcctcatgc ctccatctat ttaggcattt ctgaatagta accaacttct taaagaaatt 13020
464 cttagctgta acatgtagt acccagaaaa aaaaattgca tcatagaaaa ctttcaaaaa 13080
466 actcacaac acacgagcat gtttctaate catctcttta ggacatctc cttcactatt 13140
468 tagaagagtg agcacatatg cagcctcaac atactcataa cgattgaaag cttgttcaaa 13200

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/754,853C

DATE: 10/19/2006
TIME: 10:15:35

Input Set : F:\00330V2.TXT
Output Set: N:\CRF4\10192006\I754853C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; N Pos. 261022,261023,261024,261025,261026,261027,261028,261029
Seq#:4; N Pos. 261030,261031,261032,261033,261034,261035,261036,261037
Seq#:4; N Pos. 261038,261039,261040,261041,261042,261043,261044,261045
Seq#:4; N Pos. 261046,261047,261048,261049,261050,261051,261052,261053
Seq#:4; N Pos. 261054,261055,261056,261057,261058,261059,261060,261061
Seq#:4; N Pos. 261062,261063,261064,261065,261066,261067,261068,261069
Seq#:4; N Pos. 261070,261071
Seq#:4; N Pos. 305346,305347,305348,305349,305350,305351,305352,305353
Seq#:4; N Pos. 305354,305355,305356,305357,305358,305359,305360,305361
Seq#:4; N Pos. 305362,305363,305364,305365,305366,305367,305368,305369
Seq#:4; N Pos. 305370,305371,305372,305373,305374,305375,305376,305377
Seq#:4; N Pos. 305378,305379,305380,305381,305382,305383,305384,305385
Seq#:4; N Pos. 305386,305387,305388,305389,305390,305391,305392,305393
Seq#:4; N Pos. 305394,305395,305396,305397,305398,305399,305400,305401
Seq#:4; N Pos. 305402,305403,305404,305405,305406,305407,305408,305409
Seq#:4; N Pos. 305410,305411,305412,305413,305414,305415,305416,305417
Seq#:4; N Pos. 305418,305419,305420,305421,305422,316281,316282,316283
Seq#:4; N Pos. 316284,316285,316286,316287,316288,316289,316290,316291
Seq#:4; N Pos. 316292,316293,316294,316295,316296,316297,316298,316299
Seq#:4; N Pos. 316300,316301,316302,316303,316304,316305,316306,316307
Seq#:4; N Pos. 316308,316309,316310,316311,316312,316313,316314,316315
Seq#:4; N Pos. 316316,316317,316318,316319,316320,316321,316322,316323
Seq#:4; N Pos. 316324,316325,316326,316327,316328,316329,316330,316331
Seq#:4; N Pos. 316332,316333,316334,316335,316336,316337,316338,316339
Seq#:4; N Pos. 316340,316341,316342,316343,316344,316345,316346,316347
Seq#:4; N Pos. 316348,316349,316350,316351,316352,316353,316354,316355
Seq#:4; N Pos. 316356,316357,316358,316359,316360,316361,316362,316363
Seq#:4; N Pos. 316364,316365,316366,316367,316368,316369,316370,316371
Seq#:4; N Pos. 316372,316373,316374,316375,316376,316377,316378,316379
Seq#:4; N Pos. 316380,316381,316382,316383,316384,316385,316386,316387
Seq#:4; N Pos. 316388,316389,316390,316391,316392,316393,316394,316395
Seq#:4; N Pos. 316396,316397,316398,316399,316400,316401,316402,316403
Seq#:4; N Pos. 316404,316405,316406,316407,316408,316409,316410,316411
Seq#:4; N Pos. 316412,316413,316414,316415,316416,316417,316418,316419
Seq#:4; N Pos. 316420,316421,316422,316423,316424,316616

VERIFICATION SUMMARY

DATE: 10/19/2006

PATENT APPLICATION: US/09/754,853C

TIME: 10:15:35

Input Set : F:\00330V2.TXT

Output Set: N:\CRF4\10192006\I754853C.raw

L:5862 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 2
L:6024 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 2
L:17363 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 3
L:35816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:260974
M:341 Repeated in SeqNo=4
L:44622 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 8
L:44784 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 8
L:45079 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 9
L:45384 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 10
L:45681 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 11
L:45985 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 12
L:46280 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 13
L:46425 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 14
L:46587 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 14
L:46882 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 15
L:47027 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 16
L:47189 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 16
L:47484 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 17
L:47789 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 18
L:48088 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 19
L:48390 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 20
L:48689 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 21
L:48991 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 22
L:49290 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 23